MEDICINE TODAY

Current comment on medical progress, reviews of selected books and periodic literature, by contributing editors.

Dermatology and Syphilology

Lupus erythematosus has earned the reputation of being one of the most obstinate conditions encountered in dermatological practice. Although not a common disease it occurs often enough [1] (about once in three hundred skin cases) to constitute a serious problem. Usually the eruption spreads itself across the center of the face in a very disfiguring manner. The etiology is still a matter of dispute, some investigators attributing it to a focus of tuberculous infection somewhere within the body, others regarding it as a toxic injury from some non-tuberculous focus, such as infected tonsils or teeth. Many instances are on record in which a most careful search has failed to reveal any evidence of tuberculosis, and where removal of all suspicious foci of infection has failed to influence the eruption.

The recent announcement of Schamberg and Wright [2] of the use of gold and sodium thiosulphate (sanocrysin) in the treatment of lupus erythematosus marks an important advance in dermatological therapeutics. These authors review the literature on gold therapy in this condition and report an additional twenty-five cases with the following results: complete disappearance of the eruption in five cases; almost complete disappearance in six cases; improvement in twelve cases, some of which are still under treatment; no improvement in one. One patient died.

They are the first to use gold and sodium thiosulphate for lupus erythematosus. Other preparations of gold, especially krysolgan (4-amino-2-aurothiophenol carbonic acid) have been used during the past six years, although Ruete employed gold potassium cyanide in two cases in 1913. Summarizing the cases reviewed by Schamberg and Wright which had been traded by various men, mostly in Germany and Austria, the following results may be noted: cured, 48; much improved, 10; slightly improved, 12; no change, 7; aggravated, 4; died, 2. This gives a total of eighty-four cases of which 57 per cent were cured.

Synocrysin, which was perfected and carefully studied by Mollgard,[3] is considerably less toxic than krysolgan; the former is tolerated intravenously in rats in doses of 35 mg. per kilogram body weight as against only 20 mg. per kilogram for krysolgan. Krysolgan, however, contains a greater amount of gold. In their series of cases Schamberg and Wright employed the gold and sodium thiosulphate intravenously in doses ranging from 50 mg. dissolved in 2 cc. of sterile distilled water, up to 100 mg., at intervals of five to seven days. In the cases which were cured or markedly improved, from two to twenty injections were given. One patient received 100 injections. A number of patients in this series had been given other preparations of gold before beginning gold and sodium thiosulphate. One patient who inadvertently received six times the maximum dose (600 mg. once a week for four injections) did not suffer any serious consequences other than malaise and general depression, but doses of this size are not advisable at the present time.

Toxic reactions which were occasionally encountered were usually not serious, consisting for the most part of fever, chills, occipital headache, nausea, vomiting and various types of rashes (including urticarial erythematous, lichenoid, exfoliative and eczematous types). Uterine bleeding and transitory albuminuria, with blood and casts, have also been observed. Several instances of focal reactions were noted. The authors urge great care in the treatment of disseminate lupus erythematosus; they feel that the fatal acute attack in one of their patients may have been induced by the treatment.

Lesions of lupus erythematosus which had received previous treatment with x-ray were much more refractory than other lesions in the same patient which had not received x-ray.

The authors do not advance any explanation for the almost specific action of gold in lupus erythematosus. The results are much more satisfactory in this condition than in lupus vulgaris, which is a known tuberculous disease with tubercle bacilli actually present in the skin.

SAMUEL AYRES, JR.,
Los Angeles.

1. Darier and Pollotzer: Textbook of Dermatology, Phil. and N. Y. Lea & Febiger, 1920.
2. Schamberg and Wright: Arch. Derm. and Syph, 15 : 119, 1927.
3. Mollgard: The Chematherapy of Tuberculosis, Copenhagan, Burk, 1924.

Industrial Medicine

Toxic Hazards in Industrial Medicine—Toxic hazards have come to occupy a rather important place in industrial medicine. Sometimes chemical substances are very widespread in their usage, so that they become not only industrial problems but public health problems as well. Such was the case presented by the commercial introduction of tetraethyl lead, which is used as an "antiknock" compound, by mixing it with ordinary gasoline for fuel uses in motor cars.

The United States Public Health Service has issued a series of regulations which provide for (1) the manufacture and blending of tetraethyl lead, (2) for mixing with gasoline, (3) for distribution of ethyl gasoline, and (4) "proposed regulations for automobile garages, repair shops, service stations, and filling stations." It is an interesting fact that the controversy which followed the introduction of tetraethyl lead also gave rise to regulations affecting the general conduct of all places where automotive vehicles are housed, repaired or restocked with fuel.

The Ethyl Gasoline Corporation has also issued some regulations for the handling of ethyl fluid, written by the medical director, Dr. R. A. Kehoe.[1] Practically all unfavorable effects of exposure are

1. Rules and Regulations Governing the Handling of Ethyl Fluid. Dr. R. A. Kehoe. Abstro. by Journ. Indust. Hyg., 9 : 4, January, 1927.

to be expected only in the case of those who handle ethyl fluid in its undiluted state, as the report specifically states "there is no exposure to ethyl fluid as a result of the inhalation of vapor arising from gasoline containing ethyl fluid in commercially indicated concentration."

"Motalin" is the trade name for a substance which is used to relieve the pounding encountered in motor vehicles and has apparently met with considerable success in experiments carried out in Germany. The compound is made up of benzine, which contains 0.2 to 0.25 per cent of *iron carbonyl*. The report states [2] that there is little alteration in the physical and chemical properties of the benzine and that the compound may be employed with no greater precautions than are necessary in the handling of ordinary benzine. Experiments have furthermore shown that there is more complete combustion, less carbon monoxide and other injurious products being formed. This also decreases the exhaust gas hazard.

Lead poisoning has come to be one of the major public health problems in industrial toxicology. There has been much investigation done from the standpoint of treatment and prevention. As in other fields of therapeutic endeavor there have been some empirical and unscientific methods adopted and in some cases exploitation of so-called "specific antidotes." A recent short article in "Queries and Minor Notes" of the *Journal of the American Medical Association* [3] takes up this point:

"Much propoganda has appeared centering largely in the advertising of a maker of 'intravenous specialties' to the effect that sodium thiosulphate intravenously administered is to be favorably regarded as 'an antidote for arsenic, bismuth, mercury, and even lead poisoning.'"

The Council on Pharmacy and Chemistry had previously (*J. A. M. A.*, April 25, 1925, p. 1289), issued the following statement:

"Its use against metallic poisoning other than arsenical dermatitis is only in an experimental stage, good results in mercurial poisoning have been reported; but the uncertain outcome of mercury poisoning under any methods of treatment and especially the uncertainty as to how much of the poison was removed from the stomach by other chemical antidotes and lavage, make it difficult to draw definite conclusions."

The scientific experiments of Aub et al. during the past five years have attracted favorable and widespread comment. These researches [4] demonstrated that lead is stored in the calcareous portion of the bones and is liberated by the administration of ammonium chloride or phosphoric acid. Aub has felt that the number of cases of lead intoxication on which sodium thiosulphate has been used is too small to warrant any reliable conclusion.[5]

Still more recently Hunter and Aub [6] have shown that the metabolism of lead and calcium are similar and possibly related. By the administration of parathyroid extract (Collip) to six patients having lead poisoning, the excretion of lead was found to be much greater than when ammonium chloride and phosphoric acid were given. The method may prove of value where there are facilities for hospital care and scientific laboratory work.

The final status of accepted therapy in plumbism seems to depend on future investigations.

C. O. SAPPINGTON,
Oakland.

2. Motalin. Abstr. by Journ. Indust. Hyg., 9 : 29, February, 1927.
3. J. A. M. A., 87 : 2020, October, 1926.
4. Fairhall, L. T., and Shaw, C. P.: Lead Studies, Journ. Indust. Hyg., 6 : 159, August, 1924.
5. Personal communication.
6. Hunter, D., and Aub, J. C.: Lead Studies: XV. The Effect of the Parathyroid Hermone on the Excretion of Lead and Calcium in Patients Suffering from Lead Poisoning, Quart, J. Med., 20 : 123, January, 1927.

Orthopedics

Congenital Dislocation of the Hip—Congenital dislocation of the hip is four times as frequent as club-foot, and twelve times as common as wry-neck. Often unrecognized in infancy and relatively nondisabling in early childhood, it becomes a severely crippling disability with increased weight and growth. Less than fifty years ago it was considered incurable. Now there is hardly to be found a crippled hip so severely distorted or so long neglected that it cannot be made better.

Effective efforts to correct the deformity began after general anesthetics came into use, but no great progress was made until after Roentgen discovered the x-ray in 1885. In 1894 Lorenz of Vienna became stimulated by the work of Paci of Bologna, and a year later published his first treatise on the "bloodless" method of reduction.

Lorenz came to America in 1902 and made a pilgrimage from New York to San Francisco, stopping in Chicago to reduce the hips of the Armour child. The newspapers were filled with stories of the great "bloodless" surgeon, and the American public read about congenital dislocation of the hip.

For several years, prior to Lorenz' visit, our orthopedic surgeons had been using the "bloodless" manipulation with some success, but with growing dissatisfaction because of its violence. Some of these men had already evolved for themselves methods more efficient and less dangerous. Of the Americans who were at that time pioneering the field three at least became great masters in the treatment of hip dislocations, namely, John Ridlon, G. G. Davis, and E. H. Bradford.

Complications resulting from the violence of "bloodless" manipulations caused some surgeons to revolt against manipulative methods and turn to open operation. Among these was the late Dr. Harry Mitchell Sherman of San Francisco. Doctor Sherman's courage, skill and finished scholarship made him a conspicuous figure among American orthopedic surgeons. His paper, "An Argument Concerning the Treatment of Congenital Dislocation of the Hip" (*Am. Jour. Orth. Surg.*, January, 1905), is a classic. Later, influenced by the great skill of his friend Doctor Ridlon, and by his own increasing experience, Doctor Sherman inclined more favorably toward manipulative reduction.

Lapse of time gave perspective for comparison of different methods. The Hip Commission of the American Orthopedic Association (*Am. Jour. Orth. Surg.*, August, 1921, and *Bone and Joint Surg.*, October, 1922), reported, laying particular stress upon gentleness as a primary desideratum in manipulation. The methods of Denucé, Ridlon, Davis, and Hibbs were specially commended.

Those who have had the largest experience are overwhelmingly in favor of closed reduction in